

The invention claimed is:

1. A data transfer device which comprises:

acquisition means for acquiring area information including an area address and area length on the basis of an address of an area table in which plural pieces of said area information are written when an instruction requesting data transfer to specify the address of the area table as destination of requested data transfer is issued,

transfer information setting means for setting transfer information including an address of transfer source, a transfer data length and an address of transfer destination of data on the basis of said area information of area as transfer destination area,

judging means for judging whether said transfer destination area and other area form a continuous area where plural areas are consecutive,

transfer information changing means for changing said transfer information according to said continuous area when it is judged by said judging means that said transfer destination area and other area form said continuous area, and

data transfer control means for controlling the transfer of data on the basis of said transfer information.

2. The data transfer device as defined in claim 1 wherein said transfer information changing means changes the transfer data length of said transfer information to a value obtained by adding the area length of said other area to the transfer data length of said transfer information.

3. The data transfer device as defined in claim 1 wherein said acquisition means acquires plural pieces of said area information by the lump.

4. The data transfer device as defined in claim 3 which further comprises arranging means for arranging said pieces of area information acquired by said acquisition means according to increasing order of area address and wherein said judging means judges according to the order of arrangement by said arranging means whether said transfer destination area and other area form said continuous area.

5. The data transfer device as defined in claim 3 which further comprises:

previous area information memorizing means for memorizing said area information acquired on a previous instruction requesting the data transfer, and

area information judging means for judging whether said previous area information memorized in the previous area information memorizing means agrees with said area information acquired by said acquisition means on said latest instruction requesting the data transfer and

wherein in areas where said area information judging means judges that said previous area information agrees with said area information newly acquired, said data transfer control means controls the data transfer in the same way as for the previous transfer.

6. A data transfer method which comprises the steps of:

acquiring area information including an area address and area length on the basis of an address of an area table in which plural pieces of said area information are written when an instruction requesting data transfer to specify the address of the area table as destination of requested data transfer,

setting transfer information including an address of transfer source, a transfer data length and an address of transfer destination of data on the basis of said area information of area as transfer destination area,

judging whether said transfer destination area and other area form a continuous area where plural areas are consecutive,

changing said transfer information according to said continuous area when it is judged by said judging means that said transfer destination area and other area form said continuous area, and

controlling the transfer of data on the basis of said transfer information.

7. A data transfer program to have a computer execute the steps of:

acquiring area information including an area address and area length on the basis of an address of an area table in which plural pieces of said area information are written when an instruction requesting data transfer to specify the address of the area table as destination of requested data transfer,

setting transfer information including an address of transfer source, a transfer data length and an address of transfer destination of data on the basis of said area information of area as transfer destination area,

judging whether said transfer destination area and other area form a continuous area where plural areas are consecutive,

changing said transfer information according to said continuous area when it is judged by said judging means that said transfer destination area and other area form said continuous area, and

controlling the transfer of data on the basis of said transfer

information.

8. A computer readable storage medium storing a data transfer program to have a computer execute the steps of:

5        acquiring area information including an area address and area length on the basis of an address of an area table in which plural pieces of said area information are written when an instruction requesting data transfer to specify the address of the area table as destination of requested data transfer,

10        setting transfer information including an address of transfer source, a transfer data length and an address of transfer destination of data on the basis of said area information of area as transfer destination area,

15        judging whether said transfer destination area and other area form a continuous area where plural areas are consecutive,

20        changing said transfer information according to said continuous area when it is judged by said judging means that said transfer destination area and other area form said continuous area, and

      controlling the transfer of data on the basis of said transfer information.